

**CONTRACT CHANGE ORDER**

Change Requested by: Engineer

CCO: 127    Suppl. No. 0    Contract No. 04 - 0120F4    Road SF-80-13.2/13.9    FED. AID LOC.:

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate

**Extra Work at Agreed Lump Sum:****Constructability Model Engineering and Fabrication Procedures for East End OBG**

The Contractor shall provide engineering, detailing, and technical support necessary to develop constructability models identified in this change order for OBG Lifts 13 and 14. In addition, the Contractor shall provide an Inspection Testing Plan (ITP) and specialized fabrication procedures, not otherwise required by the Special Provisions, which will establish fabrication tolerances and methods to measure tolerances. Based on constructability issues discovered during the construction of the models revise fabrication procedures, DCP/DVP, ITP and other related fabrication submittals as provided in the Special Provisions and this change order.

The Contractor shall submit to the Engineer written, detailed, and specialized fabrication procedures for the complex assemblies listed below:

- a. Saddle grillage for the east saddles
- b. Temporary bearing assembly
- c. K-Plate Assembly
- d. Architectural housing Assembly
- e. East Cable Anchorage Overall Assembly
- f. Box girder reinforcement at East Saddle and Pier E2 bearing and Shear Key
- g. Super Elevation Transition
- h. Hinge A Assembly

The detailed and specialized fabrication procedures shall include the following:

1. The assembly and welding sequence to identify the accessibility, position, weld process with reference to the Weld Details in the working drawings and the WPS for the actual welding
2. Bolt tightening procedure to ensure that the bolts can be tightened and torqued in accordance with the contract requirements
3. Inspection Testing Plan (ITP) for welds and bolts to demonstrate accessibility and sequencing, and to ensure that welds and bolts are inspected prior to being inaccessible, and to identify special inspection requirements
4. Inspection holds points
5. Explain the dimensional verification procedures in accordance with the approved DVP, identify fabrication tolerances where the Special Provisions and AWS D1.5 are not applicable, and identify which portions of the DVP will be utilized
6. Additional dimensional control procedures in conjunction with the approved DCP
7. Painting sequence and procedures
8. Identify all temporary attachments needed for handling including the final lifting
9. Details of jigs or other supports including supports for the handling of the segments by multi-wheelers such as Scheuerle transporters

The Contractor will be compensated at the agreed lump sum amount of \$1,168,112.00 for the above extra work, including all markups.

Estimate of Extra Work at Agreed Lump Sum ..... \$ 1,168,112.00



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**Extra Work at Agreed Unit Price****Constructability Models**

The Contractor shall fabricate constructability models for portions of the East End OBG listed below to demonstrate fabrication procedures and welding sequencing, to verify access, and to demonstrate the proposed inspection testing plan for welds.

1. Lift 13 - Saddle Grillage Area and Box Girder Reinforcement at the Bearing and Shear Key Area
2. Lift 14 - Cable Anchorage Zone and Hinge Pipe Beam Area Including Reinforcement

The Contractor may propose alternative steel grades for preparation of the constructability models with the approval of the Engineer. For each constructability model, the Contractor shall follow the current written fabrication procedure and welding sequence. The Engineer shall be allowed to witness all fit-up and welding for each constructability model. Constructability models shall not be incorporated into the permanent OBG structure.

The exact make-up and limits of the constructability models will be as agreed upon between the Contractor and the Engineer, and will be subject to modification, more or less, with agreement of the Contractor and the Engineer. The effort to produce the constructability models shall in no way impact the project schedule's critical path. Work on the constructability models may be terminated at any time by either the Contractor or the Engineer.

The Contractor shall utilize lessons learned from the fabrication of the constructability models to revise and resubmit the Fabrication/Erection Procedures, DCP/DVP, Inspection Testing Plan and other fabrication submittals as provided in this change order.

Constructability models will be measured and paid for at the agreed unit price of \$5000.00 per metric ton for each metric ton of steel incorporated into the constructability models. Payment for the weight of steel incorporated into the constructability models shall not exceed 600 metric tons and will be determined from component weights shown on the approved shop drawings. The agreed upon unit price shall include full compensation for all materials, labor and equipment necessary to construct the constructability models, complete in place, including all markups. Upon request, partial progress payments of completed extra work will be made at unit price based on the estimated percentage of work completed.

Estimate of Extra Work at Agreed Unit Price Cost (600 metric tons at \$5,000.00/metric ton) = \$3,000,000.00

**Total Estimated Cost of this Change Order ..... \$4,168,112.00**

It is the intention of this CCO to provide schedule mitigation resources to facilitate the efficient and timely manufacture of lifts 13 and 14 and create an opportunity for shipment in mid July 2011.

Estimated Cost: Increase ☒ Decrease ☐ \$4,168,112.00

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by

Signature

Resident Engineer

Jason Tom for Gary Pursell, Sup.T.E.

Date 5/11/10

Approval Recommended by

Signature

Supervising Transportation Engineer

Gary Pursell, Sup.T.E.

Date 5/12/10

Engineer Approval by

Signature

Principal Transportation Engineer

Peter Siegenthaler, Prin.T.E.

Date 5/17/10

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

**NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.**

Contractor Acceptance by

Signature

(Print name and title)

Michael D. Flowers  
Project Director

Date

5-14-10